

08/23/01  
JC966 U.S. PTO

08-27-01

09/23/01  
JC978 U.S. PTO  
09/23/01

Practitioner's Docket No. 701039-51500 C

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application  
Assistant Commissioner for Patents  
Washington, D.C. 20231

NEW CONTINUATION APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of  
Inventor(s): Evan Y. Snyder, William P. Lynch, Xandra O. Breakefield and Karen Aboody

For (title): ENGRAFTABLE NEURAL PROGENITOR & STEM CELLS FOR BRAIN TUMOR  
THERAPY

1. Type of Application

This new application is for a(n)

(check one applicable item below)

- ☐ Original (nonprovisional)  
☐ Design  
☐ Plant  
☐ Divisional.  
☒ Continuation.  
☐ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. Sections 119(e), 120, or 121)

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s).

CERTIFICATION UNDER 37 C.F.R. SECTIONS 1.8(a) AND 1.10\*

(When using Express Mail, the Express Mail label number is *mandatory*;  
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

- ☐ deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents,  
Washington, D.C. 20231.

37 C.F.R. Section 1.8(a)

37 C.F.R. Section 1.10\*

- ☐ with sufficient postage as first class mail.

☒ as "Express Mail Post Office to Address"  
Mailing Label No. EL 565096151 US  
(mandatory)

TRANSMISSION

- ☐ transmitted by facsimile to the Patent and Trademark Office (703) \_\_\_\_\_

Date: 8/23/01

Signature

Zinnal Mang  
(type or print name of person certifying)

Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE  
BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

**3. Papers Enclosed**

**A. Required for Filing Date under 37 C.F.R. Section 1.53(b) (Regular) or 37 C.F.R. Section 1.153 (Design) Application**

21 Pages of Specification  
3 Pages of Claims  
3 Sheets of Drawing

**B. Other Papers Enclosed**

Copies of Power of Attorney by Assignee of Entire Interest (Revocation of Prior Powers) from Prior Application No. 09/168,350;  
Copies of Statements Under 37 C.F.R. § 3.73 (b) Establishing Right of Assignee to take action from Prior Application No. 09/168,350;  
Copy of 2 month Extension from Prior Application No. 09/168,350.  
1 Page of Abstract

**4. Additional Papers Enclosed**

☐ Amendment to claims

☐ Cancel in this applications claims \_\_\_\_\_ before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)

☐ Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)

☐ Preliminary Amendment

☒ Information Disclosure Statement (37 C.F.R. Section 1.98)

☒ Form PTO-1449 (PTO/SB/08A and 08B)

☒ Citations

☐ Declaration of Biological Deposit

☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.

☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative

☐ Special Comments

☐ Other

**5. Declaration or Oath (including power of attorney)**

☒ Enclosed – (Copies of Power of Attorney by Assignee of Entire Interest (Revocation of Prior Powers) from Prior Application No. 09/168,350; and  
Copies of Statements Under 37 C.F.R. § 3.73 (b) Establishing Right of Assignee to take action from Prior Application No. 09/168,350)

Executed by

(check all applicable boxes)

- ☐ inventor(s).  
☐ legal representative of inventor(s). 37 C.F.R. Section 1.42 or 1.43.  
☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.

- ☐ This is the petition required by 37 C.F.R. Section 1.47 and the statement required by 37 C.F.R. Section 1.47 is also attached. See item 13 below for fee.

- ☐ Not Enclosed.

- ☐ Application is made by a person authorized under 37 C.F.R. 1.41 on behalf of *all* the above named inventor(s).

- ☐ Showing that the filing is authorized.  
(not required unless called into question. 37 C.F.R. Section 1.41(d))

**6. Assignment**

- ☒ An assignment of the invention to Northeastern Ohio Universities of Medicine, Children's Medical Center Corporation and The General Hospital Corporation are being filed in Prior Application No. 09/168,350.

**WARNING:** A newly executed "STATEMENT UNDER 37 C.F.R. Section 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

- ☐ will follow.

**7. Fee Calculation (37 C.F.R. Section 1.16)**

- A.** ☒ Regular application

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CLAIMS AS FILED

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Claims	Number Filed	Basic Fee Allowance	Number Extra	Rate	Basic Fee 37 C.F.R. Section 1.16(a) \$710.00
Total Claims (37 C.F.R.	Section 1.16(c))	15	- 20 =	0	\$18.00

(New Application Transmittal--page 3 of 6)

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Independent Claims

(37 C.F.R. Section 3

- 3 =

0

\$80.00

1.16(b))

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Multiple Dependent

Claim(s), if any

(37 C.F.R. Section

1.16(d))

+

\$270.00

4026030-612600

- ☐ Amendment canceling extra claims is enclosed.  
☐ Amendment deleting multiple-dependencies is enclosed.  
☐ Fee for extra claims is not being paid at this time.

Filing Fee Calculation \$355.00

- B. ☐ Design application  
(\$320.00--37 C.F.R. Section 1.16(f))

Filing Fee Calculation \$\_\_\_\_\_

- C. ☐ Plant application  
(\$490.00--37 C.F.R. Section 1.16(g))

Filing Fee Calculation \$\_\_\_\_\_

8. **Small Entity:** This is a filing by a small entity

9. **Fee Payment Being Made at This Time**

☐ Not Enclosed

☐ No filing fee is to be paid at this time.  
*(This and the surcharge required by 37 C.F.R. Section 1.16(e) can be paid subsequently.)*

☒ Enclosed

☐ Filing fee \$355.00

Total Fees Enclosed \$355.00

10. **Method of Payment of Fees**

☒ Check in the amount of \$355.00.

☐ Charge Account No. \_\_\_\_\_ in the amount of \$\_\_\_\_\_.  
A duplicate of this transmittal is attached.

11. **Authorization to Charge Additional Fees**

☒ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 50-0850.

☒ 37 C.F.R. Section 1.16(a), (f) or (g) (filing fees)

☒ 37 C.F.R. Section 1.16(b), (c) and (d) (presentation of extra claims)

- ☐ 37 C.F.R. Section 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
- ☐ 37 C.F.R. Section 1.17(a)(1)-(5) (extension fees pursuant to Section 1.136(a).
- ☐ 37 C.F.R. Section 1.17 (application processing fees)
- ☐ 37 C.F.R. Section 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. Section 1.311(b))

**12. Instructions as to Overpayment**

☒ Credit Account No. 50-0850.

☐ Refund

  
\_\_\_\_\_  
**SIGNATURE OF PRACTITIONER**

Reg. No.: 34,235

Tel. No.: 617-345-6057

Customer No.: 26248

David S. Resnick

NIXON PEABODY LLP  
101 Federal Street  
Boston, MA 02110

FILED  
MAR 11 2009  
FBI - BOSTON

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Snyder et al.

Group No.:

Application No.: To be assigned

Examiner:

Filed: Herewith

For: ENGRAFTABLE NEURAL PROGENITOR AND STEM CELLS FOR BRAIN TUMOR THERAPY

**Box Patent Application**

**Assistant Commissioner for Patents**

**Washington, D.C. 20231**

**EXPRESS MAIL CERTIFICATE**

"Express Mail" label number: EL 565096151 US

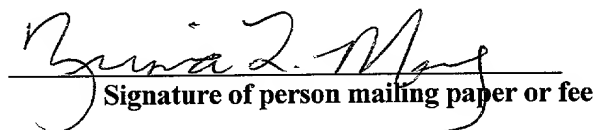
Date of Deposit: 23 August 2001

I hereby state that the following *attached* papers and fee

1. Continuation Application (specification – 21 pp.; claims – 3 pp.; abstract – 1 p.);
2. 3 pages of drawings;
3. Continuation Application Transmittal (6 pp.);
4. Preliminary Amendment (2 pp.);
5. Copy of Extension of Time from Parent Application (2 pp.);
6. Copies of Power of Attorney by Assignee of Entire Interest (Revocation of Prior Powers) and Statements Under 37 C.F.R. 3.73 from parent application;
7. Information Disclosure Statement and Form 1449 (3 pp.);
8. References AA-AC and CA-CF;
9. Check in the amount of \$355.00; and
10. Return Receipt postcard.

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to the Box Provisional Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Zinna L. Mang

  
Signature of person mailing paper or fee

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Group No.: 1636

Filed: 7 October 1998

Examiner: Yucel, I.

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

## CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: \_\_\_\_\_

Nicole M. Gignac  
(type or print name of person mailing paper)

Assistant Commissioner for Patents  
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. SECTION 3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION

1. The assignee(s) of the entire right, title and interest hereby seek(s) to take action in the PTO in this matter.

## IDENTIFICATION OF ASSIGNEE

2. The Children's Medical Center Corporation

Name of assignee

Corporation – Non-profit organization

Type of assignee, e.g., corporation, partnership, university, government agency, etc.

## PERSON AUTHORIZED TO SIGN

3. William New

(type name of person authorized to sign on behalf of assignee)

Vice President, Research Administration, Children's Medical Center Corporation

Title of person authorized to sign

(complete the following, if applicable)

- [X] I, the person signing below, state that I am empowered to sign this statement on behalf of the assignee.



In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

Examiner: Yucel, I.

### BASIS OF ASSIGNEE'S INTEREST

Ownership by the assignee is established as follows:

**A.**

1. a. ☒ An assignment from the inventor, Evan Y. Snyder, of the matter identified above, which was recorded in the PTO on 06/28/1999 at Reel 010053, Frame 0809.
- b. ☒ An assignment from the inventor, Karen S. Aboody, of the matter identified above, which was recorded in the PTO on 06/28/1999 at Reel 010057, Frame 0825.
2. ☐ An assignment (document) separately being submitted for recordal herewith.

### AND/OR

- B.** ☐ A chain of title from the inventor(s) to the current assignee as shown below:

1. From: \_\_\_\_\_  
Name of inventor(s)  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
2. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
3. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_

*(check item below, and add details, if applicable)*

- ☐ Additional documents in the chain of title are listed in the attached Supplemental Sheet.

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

Examiner: Yucel, I.

### COPIES OF DOCUMENTS IN CHAIN OF TITLE

*(complete this item, if copies are being sent)*

☐ Copies of the assignment(s) or other document(s) in the chain of title are attached as follows:

<input type="checkbox"/>	A	<input type="checkbox"/>	1	<input type="checkbox"/>	2
<input type="checkbox"/>	B	<input type="checkbox"/>	1	<input type="checkbox"/>	2
				<input type="checkbox"/>	3

  
\_\_\_\_\_  
Signature of Authorized Person

William New

*(type or print name of authorized person)*

Vice President

Research Administration

The Children's Medical Center Corporation

Title of authorized person

Date: 5/10/2001

Respectfully submitted,

Customer No.: 26248

\_\_\_\_\_  
**SIGNATURE OF PRACTITIONER**

David S. Resnick (Reg. No. 34,235)

NIXON PEABODY LLP

101 Federal Street

Boston, MA 02110

(617) 345-6057

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

Examiner: Yucel, I.

CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: \_\_\_\_\_

Nicole M. Gignac  
(type or print name of person mailing paper)

Assistant Commissioner for Patents  
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. SECTION 3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION

1. The assignee(s) of the entire right, title and interest hereby seek(s) to take action in the PTO in this matter.

IDENTIFICATION OF ASSIGNEE

2. The General Hospital Corporation

Name of assignee

Corporation - Non-profit organization

Type of assignee, e.g., corporation, partnership, university, government agency, etc.

PERSON AUTHORIZED TO SIGN

**FRANCES TONEGUZZO, Ph.D.**

**CORPORATE SPONSORED RESEARCH AND LICENSING**

**DIRECTOR**

3. \_\_\_\_\_  
(type name of person authorized to sign on behalf of assignee)

Title of person authorized to sign

(complete the following, if applicable)

- [X] I, the person signing below, state that I am empowered to sign this statement on behalf of the assignee.

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

Examiner: Yucel, I.

### BASIS OF ASSIGNEE'S INTEREST

Ownership by the assignee is established as follows:

A.

1. ☒ An assignment from the inventor, Xandra O. Breakefield, of the matter identified above, which was recorded in the PTO on 06/28/1999 at Reel 010056, Frame 0125.
2. ☐ An assignment (document) separately being submitted for recordal herewith.

AND/OR

B. ☐ A chain of title from the inventor(s) to the current assignee as shown below:

1. From: \_\_\_\_\_  
Name of inventor(s)  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
2. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
3. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_

*(check item below, and add details, if applicable)*

☐ Additional documents in the chain of title are listed in the attached Supplemental Sheet.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Group No.: 1636

Filed: 7 October 1998

Examiner: Yucel, I.

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

## CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

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Date: \_\_\_\_\_

Nicole M. Gignac  
(type or print name of person mailing paper)

Assistant Commissioner for Patents  
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. SECTION 3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION

1. The assignee(s) of the entire right, title and interest hereby seek(s) to take action in the PTO in this matter.

## IDENTIFICATION OF ASSIGNEE

2. Northeastern Ohio Universities College of Medicine

Name of assignee

University – Non-profit organization

Type of assignee, e.g., corporation, partnership, university, government agency, etc.

## PERSON AUTHORIZED TO SIGN

3. \_\_\_\_\_  
(type name of person authorized to sign on behalf of assignee)

Title of person authorized to sign

(complete the following, if applicable)

- ☒ I, the person signing below, state that I am empowered to sign this statement on behalf of the assignee.

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

Examiner: Yucel, I.

### BASIS OF ASSIGNEE'S INTEREST

Ownership by the assignee is established as follows:

**A.**

1. ☒ An assignment from the inventor, William P. Lynch, of the matter identified above, which was recorded in the PTO on 06/28/1999 at Reel 010056, Frame 0108.
2. ☐ An assignment (document) separately being submitted for recordal herewith.

### AND/OR

**B. ☐ A chain of title from the inventor(s) to the current assignee as shown below:**

1. From: \_\_\_\_\_  
Name of inventor(s)  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
2. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_
3. From: \_\_\_\_\_  
Name of inventor(s) or assignee  
To: \_\_\_\_\_  
Recorded in PTO: Reel \_\_\_\_\_, Frame \_\_\_\_\_

*(check item below, and add details, if applicable)*

- ☐ Additional documents in the chain of title are listed in the attached Supplemental Sheet.

In re application of: Snyder, E., et al.

Application No.: 09/168,350

Filed: 7 October 1998

For: ENGRAFTABLE NEURAL PROGENITOR  
& STEM CELLS FOR BRAIN TUMOR THERAPY

Group No.: 1636

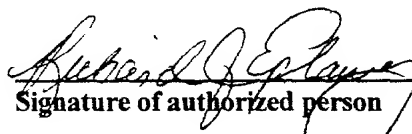
Examiner: Yucel, I.

### COPIES OF DOCUMENTS IN CHAIN OF TITLE

*(complete this item, if copies are being sent)*

☐ Copies of the assignment(s) or other document(s) in the chain of title are attached as follows:

<input type="checkbox"/> A	<input type="checkbox"/> 1	<input type="checkbox"/> 2	
<input type="checkbox"/> B	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

  
\_\_\_\_\_  
Signature of authorized person

Richard J. Eplawy

\_\_\_\_\_  
(type or print name of authorized person)

Vice President for Administration

\_\_\_\_\_  
Title of authorized person

Date: \_\_\_\_\_

Respectfully submitted,

Customer No.: 26248

\_\_\_\_\_  
**SIGNATURE OF PRACTITIONER**

David S. Resnick (Reg. No. 34,235)

NIXON PEABODY LLP

101 Federal Street

Boston, MA 02110

(617) 345-6057

7. Fee Deficiency

[X] If any additional extension and/or fee is required, charge Account  
No. 50-0850.

  
\_\_\_\_\_  
SIGNATURE OF PRACTITIONER

Reg. No.: 34,235

Tel. No.: 617-345-6057

Customer No.: 26248

David S. Resnick  
NIXON PEABODY LLP  
101 Federal Street  
Boston, Ma 02110

FILED